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On page 30, paragraph spanning lines 22 through 31, please change line 28 such that this paragraph reads as follows:

As set forth below, the DNA of SEQ ID NO:1, has been mapped by high-throughput-shotgun sequencing to the 2q11-12 region of human chromosome 2. Human chromosome 2 is associated with specific diseases which include but are not limited to glaucoma, ectodermal dysplasia, insulin-dependent diabetes mellitus, wrinkly skin syndrome, T-cell leukemia/lymphoma, and tibial muscular dystrophy. Thus, the nucleic acids of SEQ ID NO:1, SEQ ID NO:3, or a fragment thereof can be used by one skilled in the art using well-known techniques to analyze abnormalities associated with genes mapping to chromosome 2. This enables one to distinguish conditions in which this marker is rearranged or deleted. In addition, nucleic acid fragments of SEQ ID NO:1 or a fragment thereof can be used as a positional marker to map other genes of unknown location.

A2 cont.

In the claims:

Please cancel claims 2 through 7, 10, 12, 13, 14, and 16, and amend claims 1, 11, and 15 to read as follows. A marked-up copy of the claims is appended hereto. In the marked-up copy, material to be deleted is marked with a strikethrough (~~strikethrough~~) and material to be inserted is underlined.

1. (amended) An isolated DNA selected from the group consisting of:
   (a) DNA comprising SEQ ID NO: 3;
   (b) DNA comprising SEQ ID NO: 3, with the proviso that nucleotides 130-132 are selected from the group consisting of ACA, ATA and ATC;
   (c) DNA comprising SEQ ID NO:3, with the proviso that nucleotides 151-153 are selected from the group consisting of GAC and GCC; and
   (d) DNA comprising SEQ ID NO:3 with the proviso that nucleotides 130-132 are selected from the group consisting of ACA, ATA and ATC and nucleotides 151-153 are selected from the group consisting of GAC and GCC;

A3

A4 11. (Amended) A vector comprising the DNA of claim 1.

A5 15. (Amended) A host cell comprising a vector of claim 11.

Please add the following new claims:

A6

32. (New) An isolated nucleic acid selected from the group consisting of:

(a) DNA comprising SEQ ID NO: 3, encompassing an allele at amino acid 44, wherein amino acid 44 is threonine or isoleucine;

(b) DNA comprising SEQ ID NO:3, encompassing an allele at amino acid 51, wherein amino acid 44 is aspartic acid or alanine; and

(c) DNA comprising SEQ ID NO: 3, encompassing the alleles of (a) and (b).

33. (New) The isolated nucleic acid of claim 32, selected from the group consisting of:

(a) DNA comprising SEQ ID NO: 3, wherein nucleotides 130-132 are ACA;

(b) DNA comprising SEQ ID NO: 3, wherein nucleotides 130-132 are ATA;

(c) DNA comprising SEQ ID NO: 3, wherein nucleotides 130-132 are ATC;

(d) DNA comprising SEQ ID NO: 3, wherein nucleotides 151-153 are GAC; and

(e) DNA comprising SEQ ID NO: 3, wherein nucleotides 151-153 are GCC.

34. (New) An isolated oligonucleotide having at least about 17 contiguous nucleotides of SEQ ID NO:3, selected from the group consisting of:

(a) an oligonucleotide encompassing an allele at amino acid 44, wherein amino acid 44 is isoleucine;

(b) an oligonucleotide encompassing an allele at amino acid 51, wherein amino acid 51 is alanine; and ;

(c) an oligonucleotide encompassing the alleles of (a) and (b).

35. (New) The isolated oligonucleotide of claim 34, selected from the group consisting of:

(a) an oligonucleotide encompassing an allele at amino acid 44, wherein nucleotides 130-132 are ATA;

(b) an oligonucleotide encompassing an allele at amino acid 44, wherein nucleotides 130-132 are ATC; and

(c) an oligonucleotide encompassing an allele at amino acid 51, wherein nucleotides 151-153 are GCC.